MYCOLOGICAL BULLETIN

W. A. KELLERMAN, Ph. D.

OHIO STATE UNIVERSITY



Entered as second class matter may 11, 1906, at the postoffice at Columbus, Ohio.

Edited and Published by W. A. KELLERMAN



Press of VANCE-POLAND CO.
Columbus, Ohio

189:22 199

CATALOGUED.

You Can Use Engravings

in your ousiness, just the same as other men use them. Time was when engravings were really too expensive for common use, but they

are cheap now-

BUCHER FNGRAVING

COMPANY

COLUMBUS,

LEETTETEETE

Portraits, Buildings Machinery, Live Stock Advertising Cuts Stationery Headings Cover Pages, Etc.

We have a beautiful specimen book which shows the quality of our work, and we send it free on request

WRITE US ABOUT ANY KIND OF ENGRAVED DESIGN FOR ANY PURPOSE

We make the engravings for this Publication

Standard Botanical Text Books

Andrews's (E. F.) Botany All the Year Round	00
The same. With Brief Flora of the Eastern United States 1	50
APGAR'S (A. C.) Trees of the Northern United States	00
APGAR'S (E. A. & A. C.) New Plant Analysis	00
CHAPMAN'S Flora of the Southern United States Third Edition	. 55
Charman's Fiora of the Southern Chiled States I nird Edition	00
COULTER'S Manual of the Botany of the Rocky Mountains	62
GRAY'S Lessons in Botany	94
Outlines of Botany (Leavitt)	00
The same, With Field, Forest and Garden Flora	80
The same. With Manual of Rotany	90
Field, Forest and Garden Botany, Flo ra only	14
School and Field Book of Botany. Lessons and Flora	22
Manual of Rotany Flore only	80
Manual of Botany. Flora only.	62
The same. Tourist's Edition	00
Lessons and Manual. One volume.	16
GRAY'S New Botanical Text-Book;	
Vol. I., Structural Botany (Gray)	00
Vol. II., Physiological Botany (Goodale)	00
GRAY & COULTER'S Text-Book of Western Botany	10
LEAVITT'S Outlines of Botany	10
The same With Conty Field Forest of C. 1 Di	00
The same. With Gray's Field, Forest and Garden Flora	. 80
The same. With Gray's Manual of Botany	2 25
WOOD'S (Alphonso) Object Lessons in Botany	1 00
Lessons in Borany	00
New American Botanist and Florist-Lessons and Flora (Willis)	75

AMERICAN BOOK COMPANY, Cincinnati

When answering advertisement mention Mycological Bulletin.

FOR SALE

Half-tone Portraits of the following eminent Mycologists:
Peck, Ellis, Arthur, Burrill, Farlow, Tracy, Earle, At-
kinson, Holway, Thaxter, Clinton, Magnus, Oudemans,
Patouillard, Hennings, Rehm, Cooke, Saccardo, Dietel,
Mycological Bulletin, Vol. I, 1903 50 cts.
" " " II, 1904 50 cts.
" "III, 1905 50 cts.
" Current volume 25 cts.
Mycological Glossary
Journal of Mycology, Vol 8—1902 \$2 00
" " 9—1903 2 00
" " " 10—1904 2 00
" " " 11—1905 2 00
" " Current Vol 2 00

W. A. Kellerman, Columbus, Ohio

This space is owned by
THE TERRY ENGRAVING CO.
COLUMBUS, OHIO

Mycological Bulletin

No. 82

W. A. Kellerman, Ph. D., Ohio State University.

Columbus, Ohio, October, 1907.

MOSTLY ABOUT POLYPORI.

Though C. G. Lloyd's Mycological writings are most generally distributed to a wide circle of readers, it is probable that many patrons of the *Bulletin* do not receive all that he publishes. We therefore think it advisable to reproduce here portions as far as space permits.

NOTES FROM MYCOLOGICAL LITERATURE, VIII.

W. A. KELLERMAN.

Mr. C. G. Lloyd of Cincinnati published Letter No. 10 from Paris, July, 1906, and from this interesting and instructive communication we make the following excerpts:

"There have been about twenty-cight hundred polyporoids 'described,' not counting the several hundred 'synonyms' given by Fries. From the United States alone there are about five hundred 'species' recorded. Fungi are widely distributed plants. The fungi of Europe and the United States are practically the same. We do not question but the larger part of these twenty-eight hundred are synonyms, but it is a large task to find out what they are and to learn the species that are 'good.' We shall devote most of our time in the immediate future to work on the European species, for it is self-evident that as the first and most of the work has been done with European species, and as the American species are largely the same, one must first acquire a knowledge of what occurs in Europe in order to be in position to judge as to those of America.

"There has been so much changing of names lately in the Polyporii that we feel it well to state our position in this regard. The most and best systematic work on Polyporus was done by Fries. His system and names have been in general use for two generations, and are familiar to all. We therefore feel that no attempt should be made to change them excepting in very exceptional cases. It has become quite a fad lately to look up dates of synonyms and shuffle the names around on such evidence.

[359]



Fig. 266. CLI-TOC'-Y-BE LAC-CA'-TA. EDIBLE. Growing in woods, fields, roadsides and other waste places, as Professor Atkinson says, quite easily recognized from the whitish scurfy cap when young, pale red or tan color when mature, the gills pink or purplish, though the spores are white. The character of the gills is evident in photograph which was made from specimens collected near Columbus, Ohio, July 27, 1907.

latest work. As to the extra European species, some two thousand or more, they have been mostly described at four centers—Upsula, Berlin, London, and Paris. There are without question many reduplications of names. The only thing that can be done as I see it is to hunt up and study these specimens where they exist, and then take the first name, unless there are good reasons for not taking it. As to genera, the question is not so simple. The genus Polyporus is too large and should be broken up, but I fell that as much of the old should be retained as possible, particularly the four leading sections with which we are all familiar. Also the allied genera, Trametes, Daedalea, etc., notwithstanding that the same plant often exhibits forms that 'throw it into another genus.' The leading ideas of the genera are simple and well known, and no system of classification can be devised that does not have its objections and 'exceptions.

"In Europe for the last twenty years there have been three men working on dividing the polyporoids into new genera. First, Karsten, then Quelet, then Patouillard. Each has proposed his own system and his own opinion, of the vast array of new names. Mycologists in general refuse to learn a new language in order to work with old plants. I think many good ideas are expressed in their work, but they would have been better received had they been used to subdivide the old genera, not to replace them. In America, Mr. Murrill is a little late in taking up the work, for most of it has been done before-at least three different ways. To rechristen the ideas of his predecessors and further add to the Babel of new names, is only making a bad position worse. As the European work has mostly failed to meet with favor for this very reason, I can foresee no other fate for the American."

SAMPLE COMMENTS ON A FEW COMMON SPECIES.

"Fomes Leucophaeus.—The very commonest Fomes in our country. It is so close to Fomes applanatus of Europe that I do not believe that any one would note the difference on a casual examination of the two plants, and it is not strange that the plant has been universally called Fomes applanatus in most all American literature. European mycologists have applanatus in most all American literature. European mycologists have been using the microscope on the spores of Fomes, and when I sent the plant there it was noted that it had smooth spores, while the spores of Fomes applanatus are rough. It was published in Mycological Notes in 1901 (page 60), which I think was the first time attention was drawn to this popular error which had persisted in American mycology up to that date. Recently it has been announced that Leveille first called the plant "megaloma," but I think that is largely guess work, and I have thus far been unable to find any confirmatory evidence, but have found positive proof that Leveille determined and published the plant as "Polyporus applanatus."

"POLYPORUS LUCIDUS.—The correct genus to which this plant belongs is now known as Ganoderma, consisting of species with "varnished" pilei and colored spores. Most of them, I think, are better called Fomes, but this species with us is not perennial, hence not properly a Fomes. It is therefore a question whether to call it Polyporus lucidus, Fomes lucidus or Ganoderma lucidus. It has been known, however, under the specific name "lucidus" for more than a hundred years, and it is purely chimerical to try to change that.

"POLYSTICTUS PERGAMENUS .- A very common plant in the United States, usually growing on oak. It is claimed that as the original grew on pine it is not the same as the common species in the United States, and the name Polystictus pseudo-pergamenus has been proposed. However, the plant is generally known as Polystictus pergamenus. It is a curious fact that this is a very rare plant in Europe, and it was recently brought into the museum

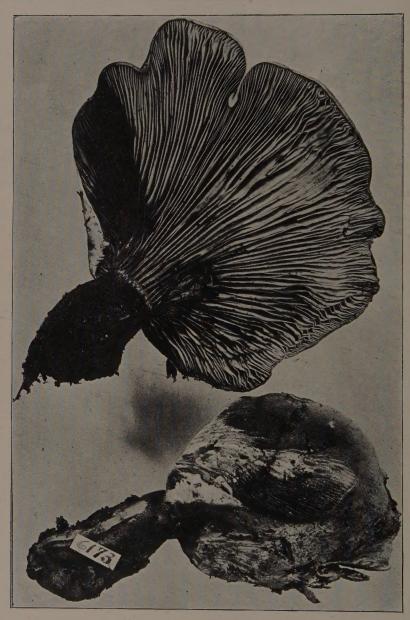


Fig. 267. Pax-IL'-LUS AT'-RO-TO-MEN-TO'-SUS. Photograph of the dark brown specimens collected on rotten wood at base of tree, at Sugar Grove, Ohio, August 10, 1907, by Supt. Hard, Mrs. Blackford and the Editor.

at Paris as a great rarity. It is called in France "Polystictus simulans, Blonski."

"Schizophyllum commune.—A very common species all over the world and in every country, hot and cold, where I have ever been. At Cincinnati it has a special liking for the maple. It has been known as "commune" for two generations, but recent date dictionary investigators have called it Schizophyllum alneum, in my opinion a stupid change for a plant thas is the most *common* species, that occurs everywhere, and grows in many countries and thousands of localities where alder does not grow.

THE MYCOLOGICAL SITUATION IN AMERICA.

"I have to write so many letters to my correspondents in reply to inquiries as to what literature to buy in order to study mycology that I feel it will save time to issue a printed letter on the subject.

"Unfortunately there is no one book of much service. I always advise my correspondents to first buy Atkinson's "Mushrooms, Edible, Poisonous, etc." It is the best book we have. It is only a primer and does not consider one of twenty of the agaries you will meet every season, but you can derive from it a general idea of classification. I believe he should have all praise for what he has done, not hiding the fact that there is a great deal of room to do much better as he learns more of the subject.

"The next book of service is Miss Marshall's "Mushroom Book," chiefly on account of the pictures which are much better than the text. Like the preceding it is purely elementary and considers only a few common species.

"Dr. Herbst's 'Fungal Flora of the Lehigh Valley,' Pennsylvania, is a very useful book because it considers many common plants that every one

will meet. Unfortunately the illustrations are very poor.

"When you have begun to get an insight into the genera, buy Stevenson's 'British Fungi.' It is chiefly a translation of Fries, but it is all the more valuable on that account. Fries was the great master of agarics in Europe, and universally held to be the best authority, but his writings are in Latin, and while they are court of final resort, you will not need them until you reach the 'new species' stage.

"Massee's 'British Fungus Flora,' four volumes, is the latest English work and is largely used in England. The arrangement of the genera departs from all other works and it is so difficult to find anything in it that I rarely use it. It always reminds me of a house I saw on the Midway

where everything was upside down.

"The fungi of Europe and America are for the most part the same species, and thus any European work will be of service in America. It is my firm belief that the greater part of the plants in America that have been described as new species, are European plants not recognized. ure to identify the American plants from the conflicting accounts and illustrations that have been given of them in Europe is to no man's discredit. To reach conclusions when working with agarics in Europe is a task difficult enough: in America it is impossible. If American mycologists had any practical way of learning the American names for the agaries they meet it would be a great help.

"It is my experience in America that about two out of three plants one meets agree with the descriptions just enough so that one thinks it may be the species, and differ just enough so that one doubts it. So that you are in a more uncertain position when you finish your determination than when you began it. This is the fault of the way in which the matter is presented. Professor Peck knows the New York plants and could write systematic work, presenting the plants by contrast and pointing out the



Fig. 268. He-be-lo'-ma re-pan'-dum. Collected in a heavily manured cabbage patch on the farm of the Ohio State University, Jul. 14, 1907, and identified by Professor Morgan. Only one species (not this one) of Hebeloma is figured and described by Professor Atkinson. He says: "The genus corresponds with Tricholoma of the white spored Agarics. All the species are regarded as unwholesome, and some are considered poisonous. The species largely occur during the autumn. Few have been studied in America." The color was dark fulvous or sometimes buff.

differences between them so that they could be recognized. I think I reflect the wish of every American mycologist when I express the hope that he may undertake A Manual of New York Agarics. I used the word 'New York' because it is the New York species that Professor Peck knows, and fungi are such widely spread plants that it would serve as a manual for the entire country. American mycology is embarrassed with a lot of 'dried specimens' descriptions of agarics which for the most part are rubbish and should be crossed off the 'literature.' It is impossible for a man to draw up live characters from dead plants that lose the most of their real characters in drying. Such work only confuses the facts and should be ignored in any work that wishes to be of real service.

"Not counting Boudier, the best illustrations of the agarics of Europe in my opinion are the old works of Bulliard, Sowerby, and Greville, and in the Flora Danica. The most useful series is Cooke's plates because it embraces all common species and for the most part is fairly well done. If you have funds to buy but one series of illustrations, by Cooke's. They cost about one hundred dollars. With all Cooke's faults, he did a great deal to popularize mycology in England, and I wish we had a Cooke in



Fig. 269. Rus'-su-la e-met'-ca.. Poisonous. On the ground in thin moist forests, where there is much decaying and disintegrated wood. The photograph from which the cut was made, is of specimens collected in the Paint Creek region near Chillicothe, in August, 1906. The cap is pink or rosy, darker in age. It is very acrid in taste, said to be an emetic, and is poisonous, according to "authorities," but MacIlvaine says he eats it.



Fig. 270. Po-Ly'-fo-Rus pi'-ci-pes. Like several other Polypores this is said to be good enough to eat when quite young, but it is more interesting in other ways. It is one of the striking common forms, our cut from photographs of specimens in which the pores are just making a beginning; but when mature they are yet very small; the fruiting surface is white and the pores are round, yellowish with age. When the pallid state of the cap is completed it gradually becomes chestnut—this and its peculiar form commanding universal attention. Collected at Chillicothe, Ohio. August, 1907.

The Mycological Bulletin is issued Monthly, Price 25c. Copies of Vol. II (1904), Vol. III (1905) and Vol. IV (1906) man be had for 50 cents each, or cloth bound copies for 75 cents. No copies remain of Vol. I (1902). Address W. A. Kellerman,

NEW SPENCER MICROSCOPE



No. 404

No. 40 Stand
Abbe Condenser
Two Iris Diaphragms
Triple Nosepiece
16 mm. (1-3") Objective
4 mm. (1-6") Objective
2 mm. (1-12") Oil Immersion Objective
Two Eyepieces
Mahogany Cabinet

THE BEST

MICROSCOPE EVER OFFERED FOR

\$75.00 BECAUSE:

The lenses are unsurpassed

The Stand is the product of the best of material and workmanship

The coarse and fine adjustments are the best made

The fine adjustment is protected by a neat handle provided for carrying the instrument

The stage is large—67 mm. free distance from the optical axis to the base of the arm is the greatest yet produced

The stage is completely covered with vulcanite from top to bottom

SPENCER LENS COMPANY

BUFFALO, N. Y.

When answering advertisement mention Mycological Bulletin.

2nd Edition of the book which is "without doubt the most important and valuable work of its kind."—Plant World.

MUSHROOMS

BY PROF. GEORGE ERANCIS ATKINSON

OF CORNELL UNIVERSITY

Edible, Poisonous Mushrooms, Etc. With recipes for cooking by Mrs. S. T. Rorer, and the chemistry and toxicology of Mushrooms, by J. F. Clark. With 230 illustrations from photographs, including fifteen colored plates by F. R. Rathbun, 320 p. 8vo, \$3.00 net (by mail \$3.23.)

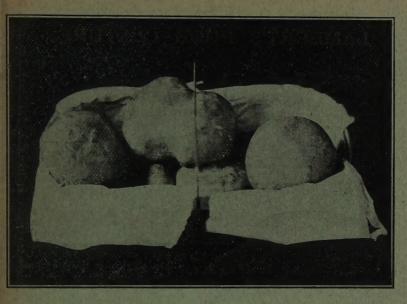
Among the additions in this second editon of Prof. Atkinson's remarkable book are ten new plates, chapters on "The Uses of Mushrooms" and on "The Cultivation of Mushrooms" illustrated by several flashlight photographs.

THE NATION said of the first edition, "If Prof. Atkinson would fill in the gaps, and 20 or 30 plates and issue a second edition . . . he would win the gratitude of every amateur and profesional mycologist in the country. (This second editon is the one now issued.)

Prospectus of New American Nature Series Free on Application

HENRY HOLT & COMPANY 29 W. 23rd St., NEW YORK

When answering advertisement mention Mycological Bulletin.



Nine Mushrooms, Weight Four Pounds Grown from Pure Culture Spawn

Make Money in Your Cellar

Mushroom Culture gives greater returns per dollar invested than any other line of horticulture. A very small outlay will start a bed, and the PURE CULTURE METHOD has eliminated risk and possibility of failure as nearly as can be possible. MUSHROOMS ARE A WINTER MONEY MAKER—you need neither greenhouse nor cold frame, just a little space in the cellar will provide you a nice income if you use

PURE CULTURE SPAWN

Success is assured for every brick is inoculated direct from test tube culture. You can breed to definite variety just as in apples, etc. You can get definite varieties for definite climates, either warm or cold. This is not true of any other spawn. Get Pure Culture Spawn.

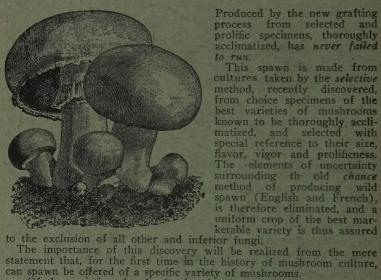
Write for our free book, No. 4, it tells all about mushroom growing.

PURE CULTURE SPAWN CO.

Pacific, Mo. and Cincinnati, O. Address all correspondence to PACIFIC

LAMBERT'S PURE CULTURE

Mushroom



Produced by the new grafting process from selected and prolific specimens, thoroughly acclimatized, has never failed

This spawn is made from cultures taken by the selective method, recently discovered, from choice specimens of the best varieties of mushrooms known to be thoroughly acclimatized, and selected with special reference to their size, flavor, vigor and prolificness. The elements of uncertainty surrounding the old chance method of arodusing wild

can spawn be offered of a specific variety of mushrooms.

Of the varieties already developed, we are offering pure culture spawn of the Agaricus Campestris (white, cream or brown), A. Arvensis (cream), and A. Villaticus (cream).

FOR SALE BY ALL LEADING SEEDSMEN.

Practical Instructions on "MUSHROOM CULTURE" mailed free on application.

American Spawn Company,

ST. PAUL, MINN.